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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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[REDACTED] EXAMINER

LAFORGIA, CHRISTIAN A

ART UNIT	PAPER NUMBER
2131	6

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/579,292	BELL, RUSSELL W.	
	Examiner	Art Unit	
	Christian La Forgia	2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 27 May 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-22 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 25 May 2000 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The amendment filed on 27 May 2003 is noted and made of the record.
2. Claims 1 through 22 are presented for examination.

Drawings

3. Applicant is reminded that the Patent and Trademark Office no longer makes drawing changes and that it is applicant's responsibility to ensure that the drawings are corrected in accordance with the instructions set forth in Paper No. 4, mailed on 03 March 2003.

Response to Arguments

4. Applicant's arguments with respect to claims 1 through 22 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, the Applicant claims that a first computer wishes "to communicate with either a second computer within the computer network, or a wide area network." The Examiner believes this to be indefinite, as one of ordinary skill in the art understands there are several inherent differences in communicating with someone on the same local area network as opposed to communicating with someone on a wide area network.

7. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the

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invention. In claim 9, the Applicant claims, “a first slave computer located within one of the first LAN and the second LAN, and a second slave computer located within one of the first LAN and the second LAN.” The Examiner does not understand whether the first slave computer is located within the first or second LAN, and likewise with the second slave computer. The Examiner requests for clarification pertaining to the aforementioned claim limitation.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1 through 14 and 16 through 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,567,405 to Borella et al., hereinafter Borella, in lieu of obviousness.

10. As per claim 1, Borella teaches a method of providing a software bridge/router within a small office, home office computer network comprising a series of computers, comprising the steps of:

11. determining a media access control address of each of the series of computers within the computer network (Abstract; Figures 2 [block 44], 7, 8; column 2, line 51 to column 3, line 5; column 3, line 46 to column 4, line 8; column 5, lines 7-57; column 6, line 46-57);

12. receiving a request from a first computer within the computer network, to communicate with either a second computer within the computer network, or a wide area network (WAN) (Figures 1 [block 12], 10 [block 142]; column 10, lines 25-45);

13. in response to the request being to communicate with the second computer, determining whether the media access control address of the second computer has previously been

determined (column 10, line 59 to column 32); and,

14. if the media access control address of the second computer has previously been determined, providing communication between the first computer and the second computer (column 10, line 59 to column 11, line 32);
15. in response to the request being to communicate with the WAN, performing a protocol conversion and providing communication between the first computer and the WAN (Figure 10 [block 144]; column 10, lines 31-58). It would have been obvious to one of ordinary skill in the art to modify the system of Borella to use the MAC address of the devices instead of the IP address. One would be motivated to provide for such a function because it would be easier to map a 128-bit external IP address to a 48-bit MAC address, instead of a 128-bit internal IP address.

16. Regarding claim 2, Borella teaches wherein the computer network comprises at least a first local area network and a second local area network (column 3, lines 61 to column 4, line 8).

17. Regarding claim 3, Borella teaches wherein communication between the small office, home office network and the WAN is provided by at least one xDSL modem (Figure 1 [block 26]; column 3, line 46 to column 4, line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made provide a DSL modem in the invention of Borella, as there are several DSL modems that provide for routing functions so small businesses and homes do not have to invest in costly routers to network their small offices or homes.

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18. With regards to claim 4, Borella teaches wherein the connection to the wide area network is a digital subscriber line (Figure 1 [block 26]; column 3, line 46 to column 4, line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made provide a digital subscriber line in the invention of Borella, as the need for DSL is more convenient for homes and offices if there are going to be several computers networked for internet access.

19. Regarding claim 5, Borella teaches wherein the step of determining a media access control address of each of the computers is performed by a first computer that then stores the media access control addresses within an address table (Figures 7, 8, 10, 11, 12; column 9, lines 15-51; column 10, lines 25-58). It would have been obvious to one of ordinary skill in the art to modify the system of Borella to use the MAC address of the devices instead of the IP address. One would be motivated to provide for such a function because it would be easier to map a 128-bit external IP address to a 48-bit MAC address, instead of a 128-bit internal IP address.

20. With regards to claim 6, Boreila teaches wherein the first computer is the first computer within the computer network to locate a digital subscriber line at the initialization of the computer network (Figure 1 [block 26]; column 3, line 46 to column 4, line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the first computer to find DSL the first computer, as the router provided by Borella would be the first and only computer to find the line as that what it was built for.

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21. Concerning claim 7, Borella teaches wherein the first computer provides a bridge/route between the small office, home office, and a wide area network (column 3, line 61 to column 4, line 8).

22. Regarding claim 8, Borella teaches wherein the communication between the first computer and the second computer comprises the transmission of data (Figure 1; column 3, line 46 to column 4, line 8).

23. As per claim 9, Borella teaches a software bridge/router system for providing a logical connection between a first local area network (LAN), having a first series of computers therein, a second LAN, having a second series of computers therein, and a wide area network, wherein the first LAN and the second LAN are located within a small office, home office (SOHO) computer network, comprising:

24. a master computer which is capable of identifying all computers within the first LAN and the second LAN (Figure 1 [block 26]; column 3, line 46 to column 4, line 8); and

25. a first slave computer located within one of the first LAN and the second LAN, and a second slave computer located within one of the first LAN and the second LAN (column 6, lines 46-65),

26. wherein the master computer provides for communication between the first slave computer and the second slave computer, and between the SOHO computer network and the wide area network (WAN) (column 3, line 61 to column 4, line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide for a DHCP

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server as disclosed in Borella. One would be motivated to do include a DHCP server as it would make the best use of available IP addresses, therefore minimizing the number of static IP addresses needed by the network. The specification does not specify what exactly a slave computer is so the Examiner interpreted the slave computer as being a computer that provides a DHCP service.

27. Claim 10 is rejected for similar reasons as stated above.

28. Concerning claim 11, Borella teaches wherein the master computer is determined during initiation of the first and second LANs, the master computer being a computer within the first LAN or the second LAN which first detects the digital connection (Figure 1 [block 26]; column 3, line 46 to column 4, line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the first computer to find DSL the first computer, as the router provided by Borella would be the first and only computer to find the line as that what it was built for.

29. With regards to claim 12, Borella teaches wherein all of the first series of computers and the second series of computers are identified by a media access control address (Figure 10 [block 144]; column 10, lines 31-58). It would have been obvious to one of ordinary skill in the art to modify the system of Borella to use the MAC address of the devices instead of the IP address. One would be motivated to provide for such a function because it would be easier to map a 128-bit external IP address to a 48-bit MAC address, instead of a 128-bit internal IP address.

30. Regarding claim 13, Borella teaches wherein each of the first series of computers and the second series of computers are capable of being the master computer (Figure 1 [block 26]; column 3, line 46 to column 4, line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the first computer to find DSL the first computer, as the router provided by Borella would be the first and only computer to find the line as that what it was built for.

31. With regards to claim 14, Borella teaches wherein computers within the first series of computers are capable of communicating with other computers within the first series of computers without the assistance of the master computer, and the second series of computers are capable of communicating with other computers within the second series of computers without the assistance of the master computer (Figures 9, 10; column 3, line 61 to column 4, line 8; column 10, lines 47-58).

32. Concerning claim 15, Borella teaches wherein a refresh cycle is performed periodically to determine whether the master computer has ceased to function, the refresh cycle resulting in determination of a new master computer if the master computer has ceased to function (column 10, lines 25-58).

33. As per claim 16, Borella teaches a system for providing a software bridge/router within a small office, home office computer network comprising a series of computers, comprising:

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34. a means for determining a media access control address of each of the series of computers within the computer network (Abstract; Figures 2 [block 44], 7, 8; column 2, line 51 to column 3, line 5; column 3, line 46 to column 4, line 8; column 5, lines 7-57; column 6, line 46-57);

35. a means for receiving a request from a first computer within the computer network, to communicate with either a second computer within the computer network, or a wide area network (WAN) (Figures 1 [block 12], 10 [block 142]; column 10, lines 25-45);

36. a means for determining whether the media access control address of the second computer has previously been determined (Figures 1 [block 12], 10 [block 142]; column 10, lines 25-45); and

37. a means for providing a communication between the first computer and the second computer (Figure 1 [block 12]; column 3, line 46 to column 4, line 8);

38. a means for performing a protocol conversion and providing communication between the first computer and the WAN (Figure 10 [block 144]; column 10, lines 31-58). It would have been obvious to one of ordinary skill in the art to modify the system of Borella to use the MAC address of the devices instead of the IP address. One would be motivated to provide for such a function because it would be easier to map a 128-bit external IP address to a 48-bit MAC address, instead of a 128-bit internal IP address.

39. Claim 17 is rejected for similar reasons as stated above.

40. With regards to claim 18, Borella teaches wherein the software bridge/router provides a bridge/router between the first local area network and the second local area network, and between the computer network and a wide area network (column 3, lines 61 to column 4, line 8).

41. Concerning claim 19, Borella teaches wherein the computer network comprising a single local area network (Figure 1 [block 12]; column 3, line 46 to column 4, line 8).

42. Claims 20 through 22 are rejected for similar reasons as stated above.

Conclusion

43. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (703) 305-7704. The examiner can normally be reached on Monday thru Thursday 7-5.

44. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7240 for regular communications and (703) 746-7239 for After Final communications.

45. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Christian La Forgia
Patent Examiner
Art Unit 2131

clf
August 10, 2003

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